REMARKS

Claims 1-19 are pending; claims 1 and 4-18 are rejected; and claims 2, 3 and 19 are objected to in this application. Claims 1, 3, 8 and 13 are amended hereby; and claims 2, 18 and 19 are cancelled hereby.

Responsive to the rejection of claims 8 and 9 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,051,466 (Protze), Applicant has amended claim 8 and submits that claims 8 and 9 are in condition for allowance.

Protze discloses an arrangement for detecting the presence of snow, ice and other freezing precipitation, particularly on railway track structures (Fig. 1). There is associated with the precipitation-detecting electrode arrangement a heating arrangement operative for heating the immediate vicinity of the precipitation detector, so as to cause the accumulated precipitation in that vicinity to melt. If a separate heating device is employed for melting the snow or ice on the rail or switch, then the concurrent melting of the snow or ice detected by the detector proceeds more or less in correspondence to the snow or ice actually posing the problem (column 3, lines 34-45). If separate heating devices are used for melting the ice or snow filling interelectrode gap 4a and for melting the ice or snow accumulated on the object to be kept free of ice and snow, then the two heating devices are so designed that the melting of the ice or snow filing the interelectrode gap 4a will lag behind the melting of the ice or snow accumulated on the object in question (column 4, lines 61-68).

In contrast claim 8, as amended recites in part:

> substantially matching said dissipation rate on said moisture sensor by heat from said second heater by modulating power to said second heater…

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Protze or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Protze discloses an arrangement for detecting the presence of snow, ice and other freezing precipitation including separate heaters, one for the object for which the snow should be melted from and one heater associated with the precipitation detecting device. Protze discloses the selection of the heating element associated with the precipitation detector so that the precipitation is melted at either the same or a lesser rate than the melting of the precipitation on the protected device. In contrast, Applicants invention utilizes an active control system to modulate power being supplied to the heater associated with the moisture sensor to match the dissipation rate on the moisture sensor to that being dissipated by the other heater element. Therefore Protze and any of the other cited references, fail to teach, disclose or suggest the step of substantially matching a dissipation rate on a moisture sensor by heat from a second heater by modulating power to the second heater, as recited in claim 8.

An advantage of Applicant's invention includes the ability to actively match the dissipation rate of an installed heater to that of a moisture sensor by modulating power to the heater associated with the moisture sensor. This advantage allows a controller to be programmed with the power density of the heater element associated with the area from which snow or other frozen precipitation is to be removed. Additionally, Applicant's invention can utilize one heater element of a higher power density associated with the moisture detector, thereby eliminating the need to tailor the heating element to the application. For the foregoing reasons, Applicant submits that claim 8, and claim 9 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 1, 4, 5, 13-15 and 18 under 35 U.S.C. § 103(a) as being unpatentable over Protze, Applicant has amended claims 1 and 13 by respectively placing elements of claim 2 into claim 1 and elements of claims 18 and 19 into claim 13. The Examiner has indicated that claims 2 and 19 would be allowable if rewritten in independent form. To that end Applicant has placed these elements in their respective base claims, thereby placing claim 1 and claims 4 and 5 depending therefrom; and claim 13 and claims 14, 15 and 18 depending therefrom, all in condition for allowance, which is hereby respectfully requested.

Claims 6, 7, 11, 12, 16 and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Protze and in further view of U.S. Patent No. 5,710,408 (Jones). However, claims 6 and 7 depend from claim 1; claims 11 and 12 depend from claim 8; and claims 16 and 17 depend from claim 13; and claims 1, 8 and 13 are in condition for allowance for the reasons given above.

The Examiner has indicated that claims 2, 3 and 19 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. To that end Applicant has placed the limitation of claim 2 into claim 1 and cancelled claim 2, thereby placing claim 1 in condition for allowance. Further, Applicant has taken the element of claim 19 and placed it into claim 13 thereby placing claim 13 in condition for allowance. Applicant thanks the Examiner for the determination of allowability of these claims.

For the foregoing reasons, Applicant submits that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicant respectfully requests withdrawal of all rejections and allowance of the claims.

In the event Applicant has overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicant hereby conditionally petitions therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: May 13, 2005.

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